

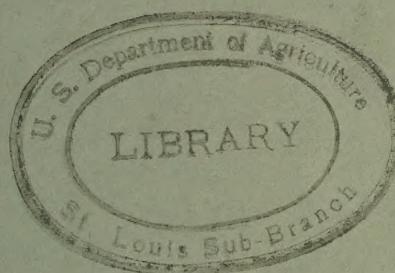
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IN 76

INSTRUCTIONS
FOR
MAKING ALLOTMENT COST ESTIMATES
(April, 1941)

(For Use In Applications and Loans Division Only)

Prepared by

E. B. Van Horn



United States Department of Agriculture
Rural Electrification Administration

U.S.D.A.
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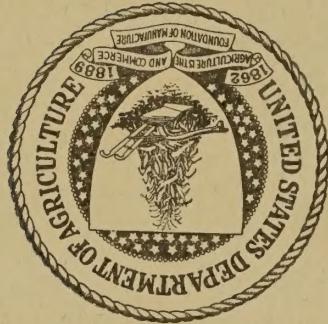
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DEPARTMENT OF AGRICULTURE

UNITED STATES

Instructions for Making Estimates
Used in Master Budget
(For Initial Projects Only)

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ITEM

1. CONSTRUCTION

(a) Pole Line Construction, Pole Marking, and Member Services (For Signed Members Only) - Pole line construction will include all poles, conductor and hardware in place up to within approximately 150 feet of members' residences. Pole marking will include the marking, with appropriate signs, of all poles on main roads. Member services will include transformer assembly, loop from the last pole to the member's residence, and yard pole, if necessary.

The old term, "pole line miles," will be discontinued, and total project mileage will be used. It may be defined as the mileage of all wire strung. It includes primary, secondary and wires to the members' residences.

To ascertain total project mileage, "wheel" project maps. To the result thus obtained, add a percentage (to be determined by your experience in your region) to account for that mileage which is necessary to bring service from the main line to the members' premises. The mileage "wheeled" plus the percentage added will equal total project miles.

In cases where the project engineer forwarded Form EX-24, total mileage may be taken from this report without "wheeling" maps.

When mileage has been determined, ascertain the per mile cost of pole line construction from curves and data set up for this purpose. Curves should be made for each state or for portions of states where considerable variance in construction costs is to be expected within the boundaries of a single state. Place the cost per mile in hundreds of dollars on the "Y" axis and place density per mile, in graduated steps, on the "X" axis. Using data from recent bids, plot points on a curve showing the per mile cost of construction according to the project density involved. Connect the various points, and you should find a curve, called a "supply curve," which ascends to the right. When a budget is to be made for a new project, determine its density per mile and proceed along the "X" axis of the curve until this density is reached. The point on the curve directly above the proper density will be the tentative per mile cost of the components of Item 1(a). The figure found on the curve should be varied upward or downward according to your judgment of labor and material costs. The point on the curve should not be considered as final, but only as a starting point for estimation.

THE HISTORY OF
THE ENGLISH PEOPLE
BY
EDWARD HASTINGS

1780

THE ENGLISH PEOPLE, BY EDWARD HASTINGS,
LONDON, 1780.
THIS IS A COPY OF THE EDITION OF 1780, WHICH WAS
PUBLISHED IN LONDON, AND IS THE FIRST EDITION OF
THE HISTORY OF THE ENGLISH PEOPLE, BY EDWARD HASTINGS.
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Instructions for Making Estimates
Used in Master Budget

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(b) Substation - Substation costs are included on the engineering report Form EO-3R. These may be conveniently tabulated as follows:

<u>Project</u>	<u>Date</u>	<u>KVA</u> <u>Capacity</u>	<u>Cost</u>
----------------	-------------	-------------------------------	-------------

Substation capacity may be determined roughly by allocating .2 KW for the average farm consumer. At unity power factor, 1 KW equals 1 KVA. Transformers are rated in KVA capacity. Final decision as to the probable size of the substation can probably best be made in consultation with the Rate Section.

(c) Clearing - Clearing costs are also shown on Engineering Form EO-3R and should be tabulated for each state as follows:

<u>Project</u>	<u>Number of Units</u>	<u>Price per Unit</u>
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Instead of a tabulation, a curve might be drawn showing the number of units along the "X" axis and the cost per unit along the "Y" axis. Actual costs should then be plotted, and a curve drawn.

2. SERVICE ENTRANCES (Signed Members Only)

This includes the meter, distribution panel, service entrance cable, fittings and grounding equipment.

An approximate cost of \$25 per member may be used, subject to variations as reason may dictate.

3. ENGINEERING

(a) Contract - Engineering contracts contain provision for payment on two items:

1. Plans and specifications (including maps). \$1,000 for the first 100 miles plus \$4 for each additional mile. If the project contains less than 100 miles, from the \$1,000 deduct \$4 for each mile under 100.
2. Staking and supervision of construction. No standard estimates can be set up because costs vary widely according to such factors as terrain, weather, accessibility, etc. Costs will be higher in hilly, wooded sections and lower on the level stretches of the Great Plains region. It would be helpful if these costs were plotted on a county outline map of each state, each entry to show project, date of contract, number of miles, and amount allowed per mile for staking and supervision. Consult with your Regional Construction Engineer to see what per mile costs have been averaging for this work.

Instructions for Making Estimates
Used in Master Budget

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(b) Force Account - In this case, the engineer will be on the project payroll, and an estimation of the length of his service together with the salary and other allowances per month may be obtained from the Regional Construction Engineer involved.

(c) Final Inspection - The compensation of inspectors consists of \$11.60 salary per day plus 5¢ per mile for an unlimited mileage plus \$30 per week for subsistence. About 60% of a project is usually inspected. About 25 miles can be inspected in one day. While the above is the method commonly used in determining costs, a charge of \$1 per mile for the total project mileage will be ample to cover the cost of final inspection.

4. LEGAL EXPENSE

(a) Legal Fee - See attached schedule for computing legal fees.

(b) Miscellaneous - Use 1/10 of 1% of the total allotment plus \$100.

5. RIGHT-OF-WAY

(a) Preallotment Expense - Use \$4.50 per mile plus \$500.

(b) Post-allotment Expense - Use \$10 per mile.

6. DIRECTOR'S FEES

Use \$600. This follows the requirements of General Order No. 108.

7. INSURANCE AND BONDS

Use 1/2 of 1% of total allotment.

8. GENERAL OVERHEAD (During construction period. To be computed as a capital item)

(a) Superintendent's Salary and Mileage (For the construction period of 9 months only)

(1) \$150.00 per month up to 150 miles
(2) 200.00 per month 150 miles to 250 miles
(3) 250.00 per month all over 250 miles

(b) Other Salaries (For the construction period of 9 months only)

(1) \$100.00 per month up to 150 miles
(2) 150.00 per month 150 miles to 250 miles
(3) 200.00 per month all over 250 miles

(c) Office Expense (For the construction period of 9 months only)

(1) \$ 75.00 per month up to 150 miles
(2) 100.00 per month 150 miles to 250 miles
(3) 125.00 per month all over 250 miles

and one of us or like me and we have paid all our expenses except
telephone service and to travel and to maintain our cars.
Therefore if you desire you can make a trip by train and save
yourself money.

The railroads charge you for each passenger and each passenger costs
you only about 10 cents per mile and the price of gasoline and oil
and telephone service is about 10 cents. You can get a room for
about \$1.00 a day and a meal of breakfast and dinner is about 50 cents
and a meal of lunch is about 25 cents. You will also have to provide
yourself with a car and a driver which will cost about \$1.00 a day
and a car and driver costs about \$1.00 a day.

So you will pay less and not require a deposit and - you know - for
the railroads I expect any trip to be 10 to 15% off - because of the way.

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Instructions for Making Estimates
Used in Master Budget

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- (d) Office Equipment - Use \$1,500 for all projects.
- (e) Transportation Equipment - Use \$1,000 for each truck allowed for linemen. Figure 1 truck for each 200 miles or fraction of line. Allow 1 piece of transportation equipment for superintendent at a cost of \$800.00.
- (f) Tools and Maintenance Material - Use \$7.50 per mile of line.
- (g) Cooperative Education - Use \$2.50 per member used in figuring payout.
- (h) Miscellaneous Overhead - \$200.00 for project for the entire 9-month period of construction.

9. MEMBER SERVICES (Potential Members Only - Use percentage of potential members previously determined upon)

See Item 1 for a description of material included in member services.
Use \$90 for each potential member.

10. SERVICE ENTRANCES (Potential Members Only - Use percentage of potential members previously determined upon)

See Item 2 for a description of material included in service entrances. Costs here will be the same as for Item 2. Use about \$25 for each member.

11. Include here provision for such items as the acquisition of existing utilities, the replenishment of member extension funds on prior projects, the acquisition or construction of headquarters facilities, etc. The item entered should be explained fully.

12. CONTINGENCIES

Use a flat $2\frac{1}{2}\%$ of the allotment adjusted so as to make the allotment in even figures.

ALLOTMENT COST ESTIMATE

(For Supplemental Projects Only)



ALLOTMENT COST ESTIMATE

(For Supplemental Projects Only)

ITEM

1. CONSTRUCTION

Determine costs as set forth in instructions for initial projects.

2. SERVICE ENTRANCES (SIGNED MEMBERS ONLY)

Determine costs as set forth in instructions for initial projects.

3. ENGINEERING

Determine costs as set forth in instructions for initial projects.

4. LEGAL EXPENSE

(a) Legal Fee - See attached schedule for computing legal fees on supplemental projects.

(b) Miscellaneous - Use 1/10 of 1% of total allotment.

5. RIGHT-OF-WAY

Determine costs as set forth in instructions for initial projects.

6. DIRECTOR'S FEES

Use \$100. This should be sufficient to cover two meetings of the Board to handle affairs relating to the supplemental project.

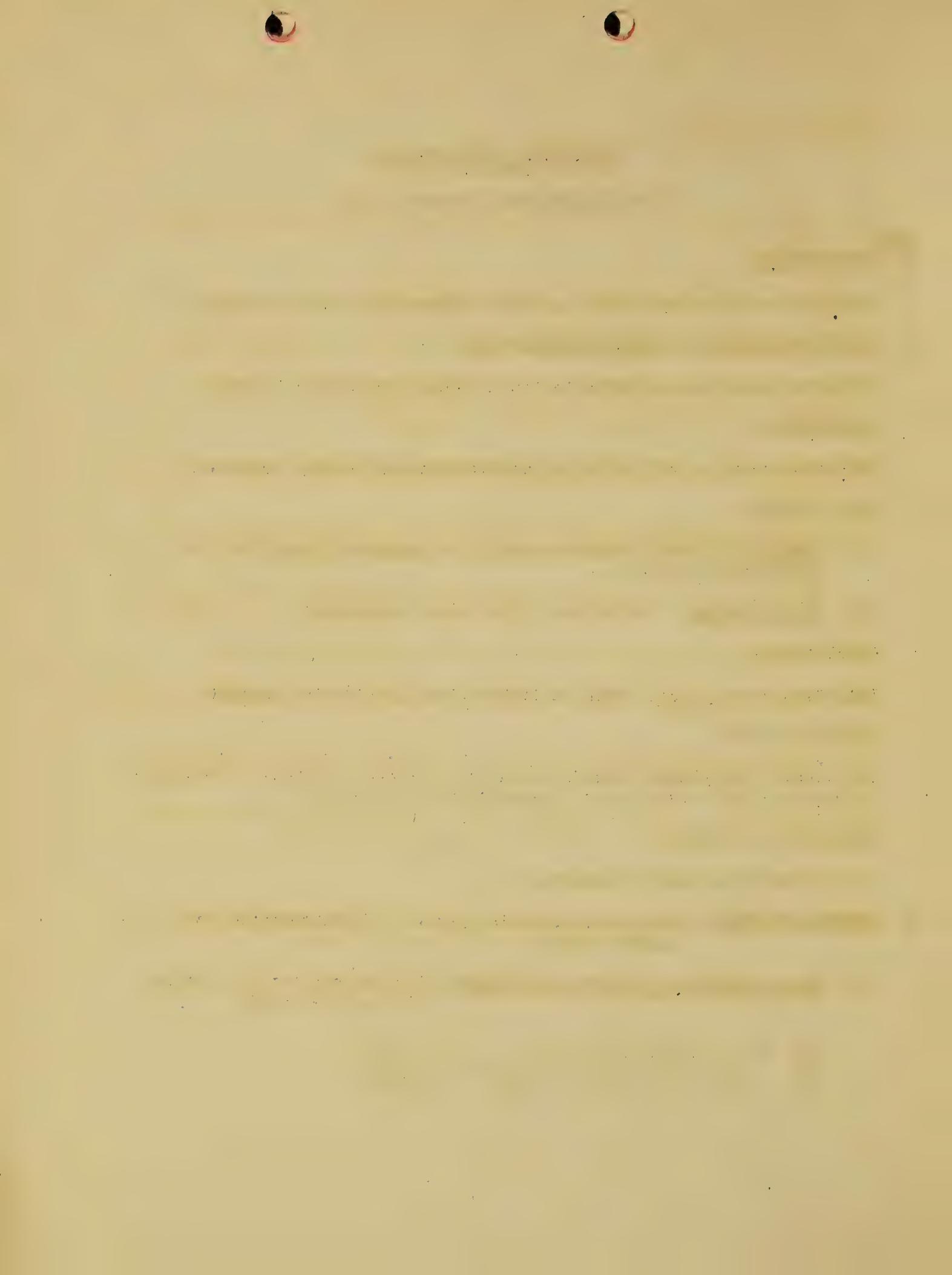
7. INSURANCE AND BONDS

Use 1/3 of 1% of total allotment.

8. GENERAL OVERHEAD (During construction period. To be computed as a capital item)

(a) Superintendent's Salary and Mileage (For the construction period of 9 months only)

- (1) \$ 50.00 per month up to 150 miles
- (2) 75.00 per month 150 miles to 250 miles
- (3) 100.00 per month all over 250 miles



Allotment Cost Estimate
(For Supplemental Projects Only) - 2 -

(b) Other Salaries (For the construction period of 9 months only):

- (1) \$25.00 per month up to 150 miles
- (2) 40.00 per month 150 miles to 250 miles
- (3) 60.00 per month all over 250 miles

(c) Office Expense (For the construction period of 9 months only):

- (1) \$20.00 per month up to 150 miles
- (2) 30.00 per month 150 miles to 250 miles
- (3) 40.00 per month all over 250 miles

(d) Office Equipment and Supplies - 20 cents per member used in figuring payout.

(e) Transportation Equipment - Use \$1,000 for each truck allowed for linemen. Figure 1 truck for each 200 miles of line.

Review mileage on sections previously allotted and consider project in its entirety in making allowance for number of trucks needed.

(f) Tools and Maintenance Material - Use \$7.50 per mile of line.

(g) Cooperative Education - Use \$2.50 per member for each member estimated to be connected.

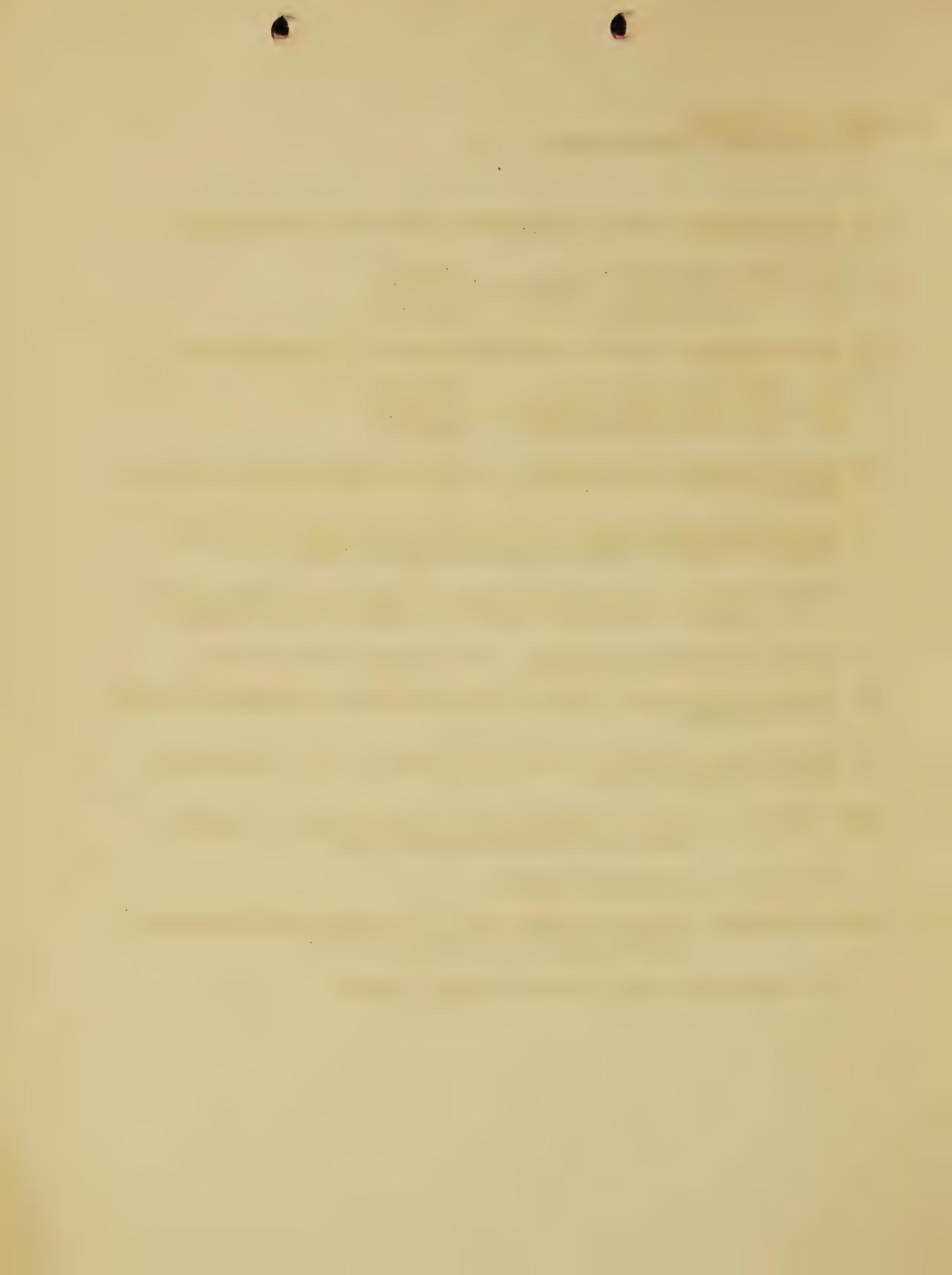
(h) Miscellaneous Overhead - \$100.00 for project for the construction period of 9 months only.

9. MEMBER SERVICES (Potential Members Only - Use percentage of potential members previously determined upon)

Use \$90 for each potential member.

10. SERVICE ENTRANCES (Potential Members Only - Use percentage of potential members previously determined upon)

Use approximately \$25 for each potential member.



Allotment Cost Estimate
(For Supplemental Projects Only) - 3 -

11. This is a special item reserved for purposes described in instructions set up for initial projects.

12. CONTINGENCIES

Ascertain unexpended and unneeded balance on previous sections. If no balance is available, use a flat $2\frac{1}{2}$ percent of the supplemental allotment. If balance available exceeds $2\frac{1}{2}$ percent of supplemental allotment, make no allowance for contingencies. If balance available is less than $2\frac{1}{2}$ percent of supplemental allotment, add an amount which will make it equal to $2\frac{1}{2}$ percent of supplemental allotment.

Where a sizable unexpended balance is available from previous allotments, use this for the construction of supplemental projects by ear marking with H. O. Hinson, and deduct the amount of the unexpended balance from the total allotment figure required on the Master Budget. Make a notation on the Budget to show that this has been done.



GENERAL INFORMATION



EXHIBIT A

SCHEDULES FOR COMPUTING LEGAL FEES

	Formula for Original Allotment		Formula for Supplementary Allotments	
	Base	Rate per \$1000 of the allotment	Base	Rate per \$1000 of the allotment
Alabama	700	4.83	375	4.83
Arizona	625	2.65	300	2.65
Arkansas	625	4.27	300	4.27
California	625	3.20	300	3.20
Colorado	625	2.90	300	2.90
Delaware	625	3.95	300	3.95
Florida	625	4.80	300	4.80
Georgia	625	5.07	300	5.07
Idaho	625	4.32	300	4.32
Illinois	625	4.44	300	4.44
Indiana	700	3.90	375	3.90
Iowa	625	3.93	300	3.93
Kansas	825	4.07	500	4.07
Kentucky	725	4.84	400	4.84
Louisiana	625	4.67	300	4.67
Maine	700	3.00	375	3.00
Maryland	700	4.50	375	4.50
Michigan	625	4.75	300	4.75
Minnesota	625	3.93	300	3.93
Mississippi	625	4.63	300	4.63
Missouri	625	4.07	300	4.07

SEE FOLLOWING PAGES AND EXCEPTIONS TO THESE SCHEDULES



- 2 -

	Formula for Original Allotment		Formula for Supplementary Allotments	
	Base	<u>Rate per \$1000 of allotment</u>	Base	<u>Rate per \$1000 of the allotment</u>
Montana	625	3.02	300	3.02
Nebraska	700	3.80	375	3.80
Nevada	625	2.85	300	2.85
New Jersey	625	4.36	300	4.36
New Mexico	625	3.22	300	3.22
N. Carolina	625	4.50	300	4.50
N. Dakota	625	3.53	300	3.53
Ohio	625	4.60	300	4.60
Oklahoma	625	5.44	300	5.44
Oregon	625	3.35	300	3.35
Pennsylvania	625	4.36	300	4.36
S. Carolina	625	4.33	300	4.33
S. Dakota	625	3.20	300	3.20
Tennessee	625	4.07	300	4.07
Texas	625	5.56	300	5.56
Utah	625	2.90	300	2.90
Vermont	625	3.47	300	3.47
Virginia	700	4.16	375	4.16
Washington	700	3.63	375	3.63
W. Virginia	625	4.20	300	4.20
Wisconsin	625	3.97	300	3.97
Wyoming	625	2.85	300	2.85



DEVIATIONS FROM REGULAR SCALE FOR COMPUTING LEGAL FEES

1. For computing legal fees for allotments under \$50,000
 - (a) The Legal fee for original allotments under \$50,000 and over \$25,000 should be computed at the rate of 1% of the allotment and legal fees for allotments below \$25,000 should be computed at the rate of 1-1/3% of the allotment.
 - (b) Legal fees for supplemental allotments under \$50,000 and over \$25,000 should be computed at the rate of 2/3 of 1% of the allotment. Legal fees for supplemental allotments under \$25,000 should be computed at the rate of 8/9 of 1%.
2. For computing legal fees for allotments made to a City
The legal fees for these allotments will vary in every case depending upon the prior relationship between attorney and City. For these allotments you should consult with the Legal Division before submitting the budget.
3. For computing legal fees for allotments for the purpose of acquiring existing lines
Please consult with the Legal Division before submitting this type of an allotment.
4. For computing legal fees for allotments made to a project within sixty days of a prior allotment
Consult with the Legal Division before submitting budget for an allotment of this nature.
5. For computing legal fees for allotments made separately but at the same time
These allotments contemplate one set of Loan Contract documents and the fees should be reduced by \$300. In other words, one base fee would be disregarded in computing the fees in accordance with the schedules. The final fees allocated to each allotment should be pro rated.
6. For computing legal fees for allotments containing an abnormal percentage of funds for purposes other than construction, such as member connections, operations, etc.

Please take these matters up separately with the Legal Division.
7. Basis for computation of legal fees for services in connection with allotments for the construction of Generating Plants.
Use following scales instead of schedules shown in "Exhibit A":

<u>Original Allotment</u>	<u>Supplemental Allotments</u>
A base fee of \$350, plus \$1.00 for each \$1000 of the allotment	A base fee of \$225, plus \$1.00 for each \$1000 of the allotment

